What is claimed is:

1. A method for protecting a MEMS structure during a dicing of a MEMS wafer to produce individual MEMS dies, comprising the steps of:

(a) preparing a MEMS wafer having a plurality of MEMS structure sites on a first side and a plurality of through holes on a second side;

(b) mounting, upon the first side of the MEMS wafer, a wafer cap to produce a laminated MEMS wafer, the wafer cap being recessed in areas corresponding to locations of the MEMS structure sites on the MEMS wafer;

(c) mounting, upon the second side of the MEMS wafer, a layer of dicing tape; and

(d) dicing the laminated MEMS wafer into a plurality of MEMS dies.

2. The method as claimed in claim 1, wherein the laminated MEMS wafer is diced using a saw.

3. The method as claimed in claim 1, wherein the layer of dicing tape has a UV releasable adhesive.

4. The method as claimed in claim 1, wherein the layer of dicing tape is heat shrinkable.

5. The method as claimed in claim 1, wherein the layer of dicing tape has a UV releasable adhesive and the layer of dicing tape is heat shrinkable.

6. The method as claimed in claim 1, wherein the wafer cap is a cover tape with an adhesive medium.

7. The method as claimed in claim 1, wherein the wafer cap includes an adhesive medium.

8. The method as claimed in claim 7, wherein the adhesive medium is an ultraviolet light releasable medium.

9. The method as claimed in claim 7, wherein the adhesive medium is a heat releasable medium.

10. The method as claimed in claim 7, wherein the adhesive medium is a combination of an ultraviolet light and heat releasable medium.

11. The method as claimed in claim 7, wherein the adhesive medium comprises a thermoplastic organic material.

12. The method as claimed in claim 7, wherein the adhesive medium comprises an ultraviolet light sensitive organic material.

13. The method as claimed in claim 7, wherein the adhesive medium comprises a solder material.

14. The method as claimed in claim 1, wherein the layer of dicing tape is applied to a second side of the MEMS wafer after the wafer cap is mounted on the MEMS wafer.

15. The method as claimed in claim 1, wherein the layer of dicing tape is applied to a second side of the MEMS wafer before the wafer cap is mounted on the MEMS wafer.

16. The method as claimed in claim 2, wherein the layer of dicing tape is applied to a second side of the MEMS wafer before the laminated MEMS wafer is sawn.

17. The method as claimed in claim 2, wherein the layer of dicing tape is cut when the laminated MEMS wafer is sawn.

18. The method as claimed in claim 1, wherein the wafer cap comprises silicon-based material.

19. The method as claimed in claim 1, wherein the wafer cap comprises a glass-based material.

20. The method as claimed in claim 1, wherein the wafer cap comprises a ceramic-based material.

21. The method as claimed in claim 1, wherein the wafer cap comprises a polymer-based material.

22. The method as claimed in claim 1, wherein the wafer cap comprises a wafer cover and a spacer layer.

23. The method as claimed in claim 22, wherein the spacer layer comprises a tape having adhesive on two sides and a flexible film.

24. The method as claimed in claim 22, wherein the spacer layer comprises a flexible film with an adhesive medium on one side.

25. The method as claimed in claim 23, wherein the flexible film is transmissive to UV radiation.

26. The method as claimed in claim 24, wherein the flexible film is transmissive to UV radiation.

27. The method as claimed in claim 22, wherein the wafer cover is a cover tape.

28. The method as claimed in 22, wherein a height of the spacer layer prevents the wafer cover from deflecting in such a manner to come in contact with the MEMS structures.

29. The method as claimed in 22, wherein a height of the spacer layer prevents electrostatically induced damage to the MEMS wafer.

30. The method as claimed in 22, wherein a height of the spacer layer prevents electrostatically induced damage to the MEMS wafer and prevents the wafer cover from deflecting in such a manner to come in contact with the MEMS structures.

31. The method as claimed in claim 22, wherein the spacer layer comprises a plurality of layers of perforated tape, an aggregate of the plurality of layers of perforated tape producing the height to prevent damage to the MEMS structures due to the wafer cover coming into physical contact with the MEMS wafer.

32. The laminated MEMS wafer as claimed in claim 22, wherein the spacer layer comprises a plurality of layers of perforated tape, an aggregate of the plurality of layers of perforated tape producing the height to prevent electrostatically induced damage to the MEMS wafer.

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33. The laminated MEMS wafer as claimed in claim 22, wherein the spacer layer comprises a plurality of layers of perforated tape, an aggregate of the plurality of layers of perforated tape producing the height to prevent damage to the MEMS structures due to the wafer

cover coming into physical contact with the MEMS wafer and to prevent electrostatically induced damage to the MEMS wafer.

34. The method as claimed in claim 1, wherein the laminated MEMS wafer is diced with a wafer saw with a dicing tape side of the laminated MEMS wafer facing towards a cutting device of the wafer saw such that the layer of dicing tape is sawn before the MEMS wafer.

35. A method for protecting a MEMS structure during a production of individual MEMS dies, comprising the steps of:

(a) fabricating a MEMS wafer having a plurality of MEMS structure sites on a first side and a plurality of through holes on a second side;

(b) fabricating a wafer cap;

(c) bonding the wafer cap to the first side of the MEMS wafer to produce a laminated MEMS wafer, the wafer cap being recessed in areas corresponding to locations of the MEMS structure sites on the MEMS wafer;

(d) mounting, upon the second side of the MEMS wafer, a layer of dicing tape; and

(e) dicing the second side of the laminated MEMS wafer into a plurality of MEMS dies.

36. The method as claimed in claim 35, further comprising the steps of:

(f) removing the wafer cap from the laminated MEMS wafer; and

(g) removing individual dies from the diced laminated MEMS wafer before the wafer cap is removed from the laminated MEMS wafer.

37. The method as claimed in claim 35, further comprising the steps of:

(f) removing the wafer cap from the laminated MEMS wafer;

(g) removing individual dies from the diced laminated MEMS wafer; and

(h) mounting dies from the diced laminated MEMS wafer into a package before the wafer cap is removed from the laminated MEMS wafer.

38. The method as claimed in claim 35, further comprising the steps of:

(f) removing the wafer cap and the layer of dicing tape from the laminated MEMS wafer;

(g) removing individual dies from the diced laminated MEMS wafer; and

(h) mounting dies from the diced laminated MEMS wafer into a package after the wafer cap is removed from the laminated MEMS wafer.

39. The method as claimed in claim 35, wherein the laminated MEMS wafer is diced using a saw.

40. The method as claimed in claim 35, wherein the layer of dicing tape has a UV releasable adhesive.

41. The method as claimed in claim 35, wherein the layer of dicing tape is heat shrinkable.

42. The method as claimed in claim 35, wherein the layer of dicing tape has a UV releasable adhesive and the layer of dicing tape is heat shrinkable.

43. The method as claimed in claim 35, wherein the wafer cap is a cover tape with an adhesive medium.

44. The method as claimed in claim 35, wherein the wafer cap includes an adhesive medium.

45. The method as claimed in claim 44, wherein the adhesive medium is an ultraviolet light releasable medium.

46. The method as claimed in claim 44, wherein the adhesive medium is a heat releasable medium.

47. The method as claimed in claim 44, wherein the adhesive medium is a combination of an ultraviolet light and heat releasable medium.

48. The method as claimed in claim 44, wherein the adhesive medium comprises a thermoplastic organic material.

49. The method as claimed in claim 44, wherein the adhesive medium comprises an ultraviolet light sensitive organic material.

50. The method as claimed in claim 35, wherein the layer of dicing tape is applied to a second side of the MEMS wafer after the wafer cap is mounted on the MEMS wafer.

51. The method as claimed in claim 35, wherein the layer of dicing tape is applied to a second side of the MEMS wafer before the wafer cap is mounted on the MEMS wafer.

52. The method as claimed in claim 35, wherein the wafer cap comprises silicon-based material.

53. The method as claimed in claim 35, wherein the wafer cap comprises a glass-based material.

54. The method as claimed in claim 35, wherein the wafer cap comprises a ceramic-based material.

55. The method as claimed in claim 35, wherein the wafer cap comprises a polymer-based material.

56. The method as claimed in claim 35, wherein the wafer cap comprises a wafer cover and a spacer layer.

57. The method as claimed in claim 56, wherein the spacer layer comprises a tape having adhesive on two sides and a flexible film.

58. The method as claimed in claim 56, wherein the spacer layer comprises a flexible film with an adhesive medium on one side.

59. The method as claimed in claim 57, wherein the flexible film is transmissive to UV radiation.

60. The method as claimed in claim 58, wherein the flexible film is transmissive to UV radiation.

61. The method as claimed in claim 56, wherein the wafer cover is a cover tape.

62. The method as claimed in 56, wherein a height of the spacer layer prevents the wafer cover from deflecting in such a manner to come in contact with the MEMS structures.

63. The method as claimed in 56, wherein a height of the spacer layer prevents electrostatically induced damage to the MEMS wafer.

64. The method as claimed in 56, wherein a height of the spacer layer prevents electrostatically induced damage to the MEMS wafer and prevents the wafer cover from deflecting in such a manner to come in contact with the MEMS structures.

65. The method as claimed in claim 56, wherein the spacer layer comprises a plurality of layers of perforated tape, an aggregate of the plurality of layers of perforated tape producing the height to prevent damage to the MEMS structures due to the wafer cover coming into physical contact with the MEMS wafer.

66. The method as claimed in claim 56, wherein the spacer layer comprises a plurality of layers of perforated tape, an aggregate of the plurality of layers of perforated tape producing the height to prevent electrostatically induced damage to the MEMS wafer.

67. The method as claimed in claim 56, wherein the spacer layer comprises a plurality of layers of perforated tape, an aggregate of the plurality of layers of perforated tape producing the height to prevent damage to the MEMS structures due to the wafer cover coming into physical contact with the MEMS wafer and to prevent electrostatically induced damage to the MEMS wafer.

68. The method as claimed in claim 35, wherein the laminated MEMS wafer is diced with a wafer saw with a dicing tape side of the laminated MEMS wafer facing towards a cutting device of the wafer saw such that the layer of dicing tape is sawn before the MEMS wafer.

69. A laminated MEMS wafer, comprising:

a MEMS wafer having a plurality of MEMS structure sites located on a first side and a plurality of through holes located on a second side;

a removable wafer cap; and

a layer of dicing tape mounted upon the second side of the MEMS wafer;

said removable wafer cap being bonded to the first side of the MEMS wafer to produce a laminated MEMS wafer, the wafer cap being recessed in areas corresponding to locations of the MEMS structure sites on the MEMS wafer.

70. The laminated MEMS wafer as claimed in claim 69, wherein said layer of dicing tape has a UV releasable adhesive.

71. The laminated MEMS wafer as claimed in claim 69, wherein said layer of dicing tape is heat shrinkable.

72. The laminated MEMS wafer as claimed in claim 69, wherein said layer of dicing tape has a UV releasable adhesive and the layer of dicing tape is heat shrinkable.

73. The laminated MEMS wafer as claimed in claim 69, wherein said removable wafer cap is a cover tape with an adhesive medium.

74. The laminated MEMS wafer as claimed in claim 69, wherein said removable wafer cap includes an adhesive medium.

75. The laminated MEMS wafer as claimed in claim 74, wherein the adhesive medium is an ultraviolet light releasable medium.

76. The laminated MEMS wafer as claimed in claim 74, wherein the adhesive medium is a heat releasable medium.

77. The laminated MEMS wafer as claimed in claim 74, wherein the adhesive medium is a combination of an ultraviolet light and heat releasable medium.

78. The laminated MEMS wafer as claimed in claim 74, wherein the adhesive medium comprises a thermoplastic organic material.

79. The laminated MEMS wafer as claimed in claim 74, wherein the adhesive medium comprises an ultraviolet light sensitive organic material.

80. The laminated MEMS wafer as claimed in claim 69, wherein said layer of dicing tape is applied to a second side of the MEMS wafer after said removable wafer cap is mounted on the MEMS wafer.

81. The laminated MEMS wafer as claimed in claim 69, wherein said layer of dicing tape is applied to a second side of the MEMS wafer before said removable wafer cap is mounted on the MEMS wafer.

82. The laminated MEMS wafer as claimed in claim 69, wherein said removable wafer cap comprises silicon-based material.

83. The laminated MEMS wafer as claimed in claim 69, wherein said removable wafer cap comprises a glass-based material.

84. The laminated MEMS wafer as claimed in claim 69, wherein said removable wafer cap comprises a ceramic-based material.

85. The laminated MEMS wafer as claimed in claim 69, wherein said removable wafer cap comprises a polymer-based material.

86. The laminated MEMS wafer as claimed in claim 69, wherein said removable wafer cap comprises a wafer cover and a spacer layer.

87. The laminated MEMS wafer as claimed in claim 86, wherein said spacer layer comprises a tape having adhesive on two sides and a flexible film.

88. The laminated MEMS wafer as claimed in claim 86, wherein said spacer layer comprises a flexible film with an adhesive medium on one side.

89. The laminated MEMS wafer as claimed in claim 87, wherein said flexible film is transmissive to UV radiation.

90. The laminated MEMS wafer as claimed in claim 88, wherein said flexible film is transmissive to UV radiation.

91. The laminated MEMS wafer as claimed in claim 86, wherein said wafer cover is a cover tape.

92. The laminated MEMS wafer as claimed in 86, wherein a height of said spacer layer prevents said wafer cover from deflecting in such a manner to come in contact with the MEMS structures.

93. The laminated MEMS wafer as claimed in 86, wherein a height of said spacer layer prevents electrostatically induced damage to said MEMS wafer.

94. The laminated MEMS wafer as claimed in 86, wherein a height of said spacer layer prevents electrostatically induced damage to said MEMS wafer and prevents said wafer cover from deflecting in such a manner to come in contact with the MEMS structures.

95. The laminated MEMS wafer as claimed in claim 86, wherein said spacer layer comprises a plurality of layers of perforated tape, an aggregate of the plurality of layers of perforated tape producing the height to prevent damage to the MEMS structures due to said wafer cover coming into physical contact with the MEMS wafer.

96. The laminated MEMS wafer as claimed in claim 86, wherein said spacer layer comprises a plurality of layers of perforated tape, an aggregate of the plurality of layers of perforated tape producing the height to prevent electrostatically induced damage to said MEMS wafer.

97. The laminated MEMS wafer as claimed in claim 86, wherein said spacer layer comprises a plurality of layers of perforated tape, an aggregate of the plurality of layers of perforated tape producing the height to prevent damage to the MEMS structures due to said wafer cover coming into physical contact with the MEMS wafer and to prevent electrostatically induced damage to said MEMS wafer.

98. The laminated MEMS wafer as claimed in claim 69, wherein the laminated MEMS wafer is diced with a wafer saw with a dicing tape side of the laminated MEMS wafer facing towards a cutting device of the wafer saw such that said layer of dicing tape is sawn before said MEMS wafer.

99. The method as claimed in claim 2, wherein the layer of dicing tape is applied to a second side of the MEMS wafer after the laminated MEMS wafer is sawn.

100. The method as claimed in claim 1, wherein the wafer cap comprises a metal.

101. The method as claimed in claim 1, wherein the wafer cap comprises a static dissipative material.

102. The method as claimed in claim 1, wherein the dicing tape comprises a static dissipative material.

103. The method as claimed in claim 1, wherein the laminated MEMS wafer is diced with a wafer saw with a wafer cap side of the laminated MEMS wafer facing towards a cutting device of the wafer saw such that the wafer cap is sawn before the MEMS wafer.

104. The method as claimed in claim 3, wherein the layer of dicing tape is removed by exposing the dicing tape to UV radiation.

105. The method as claimed in claim 4, wherein the layer of dicing tape is removed by exposing the dicing tape to heat.

106. The method as claimed in claim 3, wherein the layer of dicing tape is removed by first exposing the dicing tape to UV radiation and then exposing the dicing tape to heat.

107. The method as claimed in claim 35, further comprising the steps of:

(f) removing the wafer cap from the laminated MEMS wafer; and

(g) removing the layer of dicing tape from the laminated MEMS wafer.

108. The method as claimed in claim 107, wherein the layer of dicing tape is removed by exposing the dicing tape to UV radiation.

109. The method as claimed in claim 107, wherein the layer of dicing tape is removed by exposing the dicing tape to heat.

110. The method as claimed in claim 107, wherein the layer of dicing tape is removed by first exposing the dicing tape to UV radiation and then exposing the dicing tape to heat.

111. The method as claimed in claim 1, further comprising the steps of:

(e) removing the layer of dicing tape from the second side of the MEMS wafer; and

(f) removing individual dies from the MEMS wafer.

112. The laminated MEMS wafer as claimed in claim 69, wherein said removable wafer cap comprises a metal.

113. The laminated MEMS wafer as claimed in claim 69, wherein said removable wafer cap comprises a static dissipative material.

114. The laminated MEMS wafer as claimed in claim 69, wherein said dicing tape comprises a static dissipative material.

115. A method for protecting a wafer during a dicing, comprising the steps of:

(a) mounting, upon a backside of a wafer, a layer of dicing tape, the wafer having a front patterned side and a plurality of etched ports on a backside, the etched ports providing a possible leak path from a backside of the wafer to the front patterned side of the wafer; and

(b) dicing the wafer into a plurality of dies.

116. The method as claimed in claim 115, wherein the wafer is diced using a saw.

117. The method as claimed in claim 115, wherein the layer of dicing tape has a UV releasable adhesive.

118. The method as claimed in claim 115, wherein the layer of dicing tape is heat shrinkable.

119. The method as claimed in claim 115, wherein the layer of dicing tape has a UV releasable adhesive and the layer of dicing tape is heat shrinkable.

120. The method as claimed in claim 115, further comprising the step of:

(c) removing the layer of dicing tape from the wafer.

121. The method as claimed in claim 120, wherein the layer of dicing tape is removed by exposing the dicing tape to UV radiation.

122. The method as claimed in claim 120, wherein the layer of dicing tape is removed by exposing the dicing tape to heat.

123. The method as claimed in claim 120, wherein the layer of dicing tape is removed by first exposing the dicing tape to UV radiation and then exposing the dicing tape to heat.

124. A wafer, comprising:

a wafer having a front patterned side and a plurality of etched ports on a backside, the etched ports providing a possible leak path from a backside of the wafer to the front patterned side of the wafer; and

a layer of dicing tape mounted upon the backside of said wafer.

125. The laminated MEMS wafer as claimed in claim 124, wherein said layer of dicing tape has a UV releasable adhesive.

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126. The laminated MEMS wafer as claimed in claim 124, wherein said layer of dicing tape is heat shrinkable.

127. The laminated MEMS wafer as claimed in claim 124, wherein said layer of dicing tape has a UV releasable adhesive and the layer of dicing tape is heat shrinkable.

128. The method as claimed in claim 1, wherein the layer of dicing tape comprises a cover tape and a perforated tape.

129. The method as claimed in claim 128, wherein the cover tape includes an adhesive medium.

130. The method as claimed in claim 129, wherein the adhesive medium is an ultraviolet light releasable medium.

131. The method as claimed in claim 129, wherein the adhesive medium is a heat releasable medium.

132. The method as claimed in claim 129, wherein the adhesive medium is a combination of an ultraviolet light and heat releasable medium.

133. The method as claimed in claim 129, wherein the adhesive medium comprises a thermoplastic organic material.

134. The method as claimed in claim 129, wherein the adhesive medium comprises an ultraviolet light sensitive organic material.

135. The method as claimed in claim 128, wherein the cover tape comprises a static dissipative material.

136. The method as claimed in claim 128, wherein the perforated tape comprises a tape having adhesive on two sides and a flexible film.

137. The method as claimed in claim 128, wherein the perforated tape comprises a flexible film with an adhesive medium on one side.

138. The method as claimed in claim 136, wherein the flexible film is transmissive to UV radiation.

139. The method as claimed in claim 137, wherein the flexible film is transmissive to UV radiation.

140. The method as claimed in 128, wherein a height of the perforated tape prevents electrostatically induced damage.

141. The method as claimed in claim 128, wherein the perforated tape comprises a plurality of layers of perforated tape, an aggregate of the plurality of layers of perforated tape producing the height to prevent electrostatically induced damage.

142. The laminated MEMS wafer as claimed in claim 69, wherein said layer of dicing tape comprises a cover tape and a perforated tape.

143. The laminated MEMS wafer as claimed in claim 142, wherein said cover tape includes an adhesive medium.

144. The laminated MEMS wafer as claimed in claim 143, wherein the adhesive medium is an ultraviolet light releasable medium.

145. The laminated MEMS wafer as claimed in claim 143, wherein the adhesive medium is a heat releasable medium.

146. The laminated MEMS wafer as claimed in claim 143, wherein the adhesive medium is a combination of an ultraviolet light and heat releasable medium.

147. The laminated MEMS wafer as claimed in claim 143, wherein the adhesive medium comprises a thermoplastic organic material.

148. The laminated MEMS wafer as claimed in claim 143, wherein the adhesive medium comprises an ultraviolet light sensitive organic material.

149. The laminated MEMS wafer as claimed in claim 142, wherein said cover tape comprises a static dissipative material.

150. The laminated MEMS wafer as claimed in claim 142, wherein said perforated tape comprises a static dissipative material.

151. The laminated MEMS wafer as claimed in claim 142, wherein said perforated tape comprises a tape having adhesive on two sides and a flexible film.

152. The laminated MEMS wafer as claimed in claim 142, wherein said perforated tape comprises a flexible film with an adhesive medium on one side.

153. The laminated MEMS wafer as claimed in claim 151, wherein said flexible film is transmissive to UV radiation.

154. The laminated MEMS wafer as claimed in claim 152, wherein said flexible film is transmissive to UV radiation.

155. The laminated MEMS wafer as claimed in 142, wherein a height of said perforated tape prevents electrostatically induced damage.

156. The laminated MEMS wafer as claimed in claim 142, wherein said perforated tape comprises a plurality of layers of perforated tape, an aggregate of the plurality of layers of perforated tape producing the height to prevent electrostatically induced damage.